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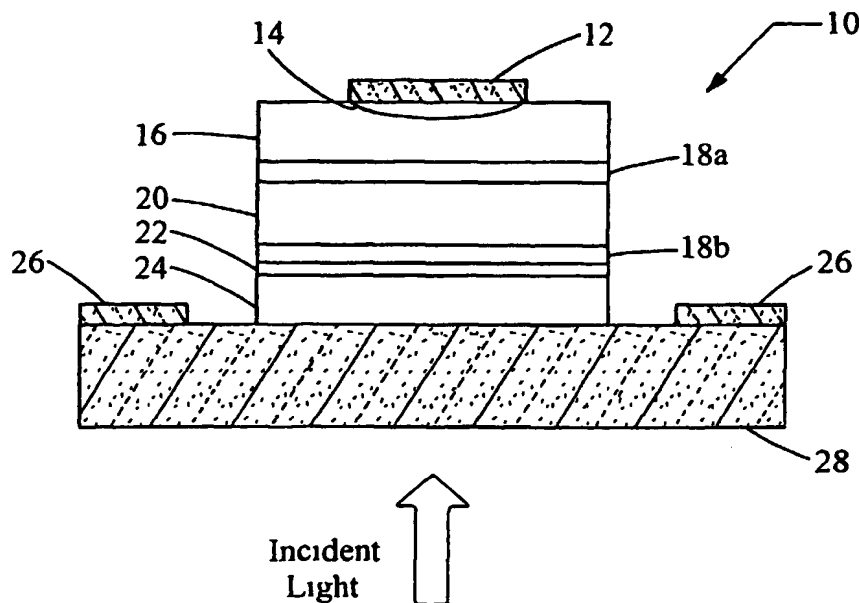
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(54) Title: **PLANAR AVALANCHE PHOTODIODE**



(57) Abstract: The present invention includes a planar avalanche photodiode having a first n-type semiconductor layer defining a planar contact area, and a second n-type semiconductor layer having a p-type diffusion region. Further features of the structure include an n-type semiconductor multiplication layer, an n-type semiconductor absorption layer, and a p-type contact layer. Further embodiments include a planar avalanche photodiode having a first n-type semiconductor layer defining a planar contact area, an n-type semiconductor multiplication layer, an n-type semiconductor absorption layer and a p-type semiconductor layer electrically coupled to a p-type contact layer.